

**ABSTRACT**

A method for determining gender from a human DNA sample. The loci of *Alu* element insertion is selected, amplified and evaluated in terms of size of the fragment. The gender assay utilizes *AluSTXa* for the X chromosome, *AluSTYa* for the Y chromosome, or both *AluSTXa* and *AluSTYa*, to reduce the possibility of error to a negligible quantity. The inserted chromosome yields a large fragment when the homologous region is amplified. The males are distinguished as having two DNA amplicons present, while females have only a single amplicon. The kit adapted for carrying out the method includes a pair of primers to amplify the locus and optionally polymerase chain reaction reagents.